학술지 전문가심사, 미래에 어떻게 할 것인가?

- ICMJE guideline과 최근 경향을 중심으로 -

한 동 수

한양대학교 구리병원 소화기내과

10 trends in scholarly publishing

- 1. General trends
- 2. Types of scholarly content
- 3. Information discovery
- 4. Information access
- 5. Purchasing approaches
- 6. Peer review
- 7. Research evaluation
- 8. Data and semantic enrichment
- 9. Preservation
- 10. Changing relationships





Rights. Content. Solutions.

Open Access: Who Holds the Power?

A Frankfurt Book Fair "Town Meeting"

9 October, 9:00-11:00, Hall 4.2 Professional and Scientific Information Hotspot

Watch the broadcast on Ustream! 9 October 2:30pm EDT

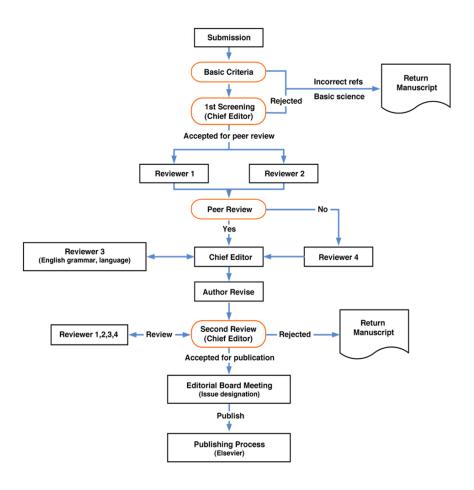


The body politic of scholarly publishing is under pressure to change its business model. In 2014, many government agencies and research funding organizations worldwide require free access to the published output of research they have funded.



전문가심사

- 과학적 원고의 기본
- DB에서 선정된 1-3 명의 심사자 위촉
- 전문가심사 결과에 책임없음
- 심사 기한을 제시하고 준수
- 투고자는 전문가심사자를 모르는 경향
- 전문가심사자를 위한 안내 자료 제공
- 금전적 보상을 받지 않음



심사자의 자세

Do	Don't
• 교육적, 건설적일 것	모호함
• 기한 내에 심사하기	• 상처
• 투고 결과와 내용을 보장	• 편견
• 이해관계나 논란 피하기	• 비평위주
• 자기 분야에 맞는 논문 수용	
• 중복출판 표절 지적	

Basic principles to which peer reviewers should adhere

- only agree to review manuscripts for which they have the subject expertise required to <u>carry out a proper assessment</u> and which they can assess <u>in a timely manner</u>
- respect the <u>confidentiality</u> of peer review and not reveal any details of a manuscript or its review, during or after the peer-review process, beyond those that are released by the journal
- <u>not use information obtained during the peer-review process</u> for their own or any other person's or organization's advantage, or to disadvantage or discredit others
- declare all <u>potential conflicting interests</u>, seeking advice from the journal if they are unsure whether something constitutes a relevant interest
- not allow their reviews to be <u>influenced by the origins of a manuscript</u>, by the nationality, religious or political beliefs, gender or other characteristics of the authors, or by commercial considerations
- be <u>objective and constructive in their reviews</u>, refraining from being hostile or inflammatory and from making libellous or derogatory personal comments
- acknowledge that peer review is largely a reciprocal endeavour and undertake to carry out their <u>fair share of reviewing and in a timely manner</u>
- provide journals with <u>personal and professional information</u> that is accurate and a true representation of their expertise
- recognize that impersonation of another individual during the review process is considered serious misconduct

COPE guideline 2013

워고심사법

- 1. 심사수용
- 2. 일차 읽기
- 3. 이차 읽기
- 4. 의견서 작성
- 5. Down to Earth Method
- 6. MeSH browser검색

원고의 구성

- 표지
- 초록
- 서론
- 방법
- 결과
- 고찰, 결론
- 그림, 그래프, 표
- 참고문헌

표지

- 논문과 저자와 관련된 일반 정보
- 논문제목, 저자정보, 면책선언, 연구지원정보, 글자수, 표와 그림의 개수, 이해관계
- 심사자, 독자의 관심을 끄는 것을 제시
- 단어 수 제한

초록

- 구조화(structured) 초록
- Introduction-method-results-conclusions
- 본문을 충실하게 반영하도록 작성
- 초록 말미에 임상시험 등록번호 기재
- 연구비 출처 기재, 말미에 본문과 분리 기술
- 150-250 단어, 생략형은 한번은 풀어쓰기

서론

- 연구 배경을 기술
- 연구 목표에 대한 가설 제시
- 적절한 참고문헌 인용
- 연구목적과 가설이 정확히 기술
- "Rules of Third"

방 법

- 특정 방법 선택 이유와 과정을 기술
- 연구 계획 단계나 연구계획서 작성 시점의 정보(기간)
- IRB, IACUC
- 연구대상 선택과 서술-기술정보-통계
 Study design-study population-data collection-laboratory methods-statistical analysis
- 서론 다음 또는 마지막
- 적절한 통계방법, 결과에 모두 반영

결과

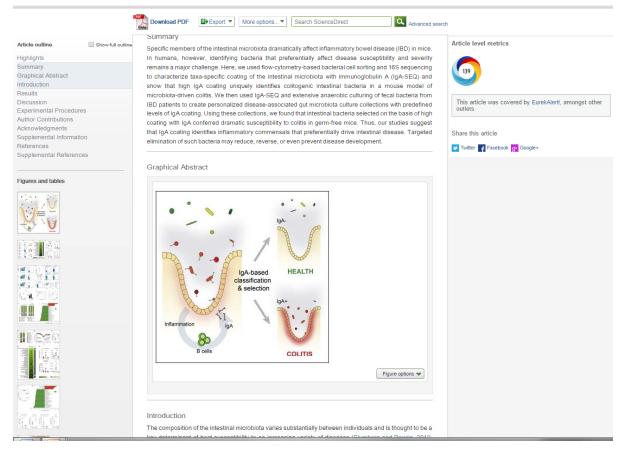
- 연구방법의 결과가 제시되었는가?
- 논리적인 줄거리에 따라 기술
- 적절한 통계분석
- 해석은 고찰에서
- 표, 그림은 논문의 쟁점이 되는 부분에 할애
- 단순, 명료하게 기술, "data not shown"

고찰

- 서론의 의도와 결과가 충분히 반영되었는가?
- 결과 해석의 깊이와 독창성
- 충분한 문헌 검토
- 임상적 의의과 통계적 의의를 구분
- 제한점 서술
- "Rule of third"

그림, 그래프, 표

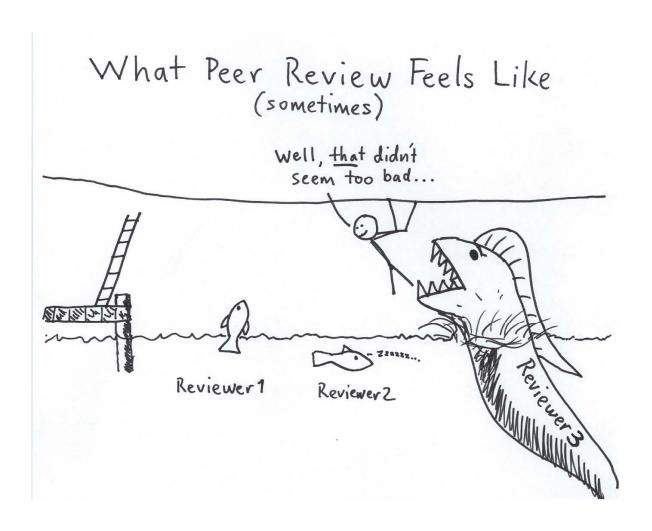
- 본문의 내용을 집약적으로 발췌
- 고해상도
- 적절한 화살표를 표시
- 적절한 수의 표, 표와 본문이 중복되지 않도록
- 인용된 순서대로 기술



Cell 2014;158(5):1000

참고문헌

- 적절한 수의 참고문헌
- 전체 원고의 질을 반영
- 정확한 인용(최근, 중요)
- 본문에 처음 인용된 순서대로 표기
- 학회 초록을 피할 것



심사자의 논문 판단 조건

- timely and relevant to a current topics
- well written, logical, and easy to comprehend
- well designed and appropriate methodology

BMJ recommended review style

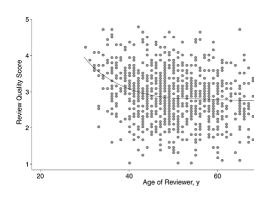
- Importance of the work to general readers does this work matter to clinicians, patients, teachers or policy makers? Is a general journ al the right place for it?
- Originality does this work add enough to what is already in the published literature? If so what does it add?
- Validity of the research
- **Presentation** of the study
- Ethical issues

답변서 작성 전 고려할 것

- 먼저 원고에 대한 칭찬을 잊지 마라
- 큰 사안부터 지적
- Down to Earth법으로 각각 사안 지적
- 서론에 연구 중요성이 충분히 언급되었는 지 확인
- 지적을 정확하게 언급
- 부족한 점, 생략 부분 언급
- 심사의도나 결과를 알 수 없게 기술

전문가 심사자

- 40세 이하
- 우수한 기관
- 통계와 역학 수련



Reviewing the Reviewers: Comparison of Review Quality and Reviewer Characteristics at the American Journal of Roentgenology

OBJECTIVE. The purpose of our study was to determine which manuscript reviewer characteristics are most strongly associated with reviewer performance as judged by editors of the American Journal of Roentgenology (AJR).

MATERIALS AND METHODS. At the AJR, manuscript reviews are rated by the journal editors on a subjective scale from 1 (lowest) to 4, on the basis of the value, thoroughness, and punctuality of the critique. We obtained all scores for AJR reviewers and determined the average score for each reviewer. We also sent a questionnaire to 989 reviewers requesting specific information regarding the age, sex, radiology subspecialty, number of years serving as a reviewer, academic rank, and practice type of the reviewer. The demographic profiles were correlated with the average quality score for each reviewer. Statistical analysis included correlation analysis and analysis of variance modeling. Reviewer quality scores were also correlated with the scoring of individual reviews and ultimate disposition of 196 manuscripts sent to the AJR during the same period.

RESULTS. Responses to the questionnaire were obtained from 821 reviewers (83.0%), for whom quality scores were available for 714 (87.0%). Correlation analysis shows that the quality score of reviewers strongly correlated with younger age (p=0.001). A statistically significant correlation between quality score and practice type was seen (p=0.008), with reviewers from academic institutions receiving higher scores. No significant correlation was found between quality score and sex (p=0.72), years of reviewing (p=0.26), academic rank (p=0.10), or the ultimate disposition of the manuscript (p=0.40). The quality score of the reviewers showed no variation by subspecialty (p=0.99).

CONCLUSION. The highest-rated AJR reviewers tended to be young and from academic institutions. The quality of peer review did not correlate with the sex, academic rank, or subspecialty of the reviewer.

80

전문가심사자

- 학술지에 투고된 원고는 비공개 교신으로 저자의 개인 기밀에 속하는 자산이며, 원고 내용의 전부 또는 일부가 적정한 시기보다 먼저 공개되면 저자가 피해를 입는다.
- 그러므로 전문가 심사자는 원고정보가 노출되지 않도록 관리를 철저히 해야 하며, 논문이 출판되기 전에 원고에 대해 공개적으로 논의하거나 원고 내용을 도용 또는 전용해서는 안 된다.
- 전문가 심사자는 개인적인 목적으로 원고를 보관해서는 안 되며, 심사를 완료한 후에는 원고를 파기해야 한다.
- 전문가 심사자는 심사 의뢰를 받으면 수락 여부를 즉시 통보하고, 주어진 시한 내에 심사평을 제출하는 것이 바람직하다. 심사평은 건설적이고, 정직하고 정중해야 한다.
- 전문가 심사자는 원고와 관련한 이해관계를 공표해야 하며, 이해관계가 있을 경우 해당 원고의 심사를 반려해야 한다.

좋은 심사가 되려면

- 충분한 전문가심사자
- 확립된 심사가이드라인
- 심사평의 공유 및 편견방지 시스템
- 심사자 평가 및 훈련, 보상

Current practice of peer review (n=3040) – An international study by Mark Ware Consulting-

- Single-blind review(84%), double blinded (44%), open peer review (22%)
- Longer review times was a cause of dissatisfaction (average 80 days)
- The most productive reviewers were overloaded. 3-4 journal, average 8/yr
 Active reviewers (>6/ yr) make up 44% of all reviewers, they are responsible
 for 79% of all review
- About 20% of invitations to review are declined.
- The average review takes 5 hours and is completed in 3-4 weeks
- Altruistic reasons for reviewing were preferred over self-interested ones.
- The average acceptance rate was 50%.
- Use of online submissions systems (76%)
- Access to journals literature(69%)

전문가 심사의 문제점

- 각 학술지 마다 상이함
- 시간지연
- 고비용
- 주관적
- 편견
- 비교육적
- 오류 파악이 어려움

mature medicine

Peering into review

The peer review process can be frustrating to researchers eager to get their work published. Changes to the process might be warranted—but only if they are based in fact, not conjecture.

onfidential peer review is a cornerstone of the publication process in science, but is not without its drawbacks. A recent open letter (http://www.eurostemcell.org/commentanalysis/peer-review/) signed by 14 stem cell researchers to the editors of major scientific journals cites "unreasonable or obstructive reviews" and the fact that "publication of truly original findings may be delayed or rejected" as reasons to refine our current practices. To increase transparency, the signatories suggest appending reviewers' comments and editorial correspondence alongside published manuscripts.

This is not the first time scientists have voiced concerns over the peer review process, and, consequently, at *Nature Medicine* a number of mechanisms are in place to prevent bias. The editorial team discusses every paper before referees are chosen and articles are sent out for external review. In a given year, we draw upon hundreds of reviewers to assess manuscripts. Including both established researchers and young investigators, our pool of reviewers is in constant flux, preventing a too-small number

and drawbacks of the studies and to outline standards of excellence for publication in the field. This discussion allows us to refine our editorial guidelines and identify what to expect from future submissions (both in technical and conceptual terms).

The authors of the open letter advocate for more profound changes, including publication of supplementary files containing anonymous referees' comments and relevant editorial communication. These measures might allow readers to appreciate how the review process has shaped a paper and might provide insight into the peer review process to younger investigators. These benefits notwithstanding, a number of lingering concerns prevent us from endorsing this strategy.

Publication of referees' comments in full may affect the quality of the reviews, leading to more cautious and restrained comments. It is difficult to ascertain how much the quality of reviews would be compromised by adopting these measures; however, previous attempts with open peer review suggest that referees are less likely to provide a direct and detailed evaluation of the report. Authors may also be reluctant to adopt this

מנעום שווובווגמי וווגי שוו וואווים ופספו גפעי





DANIEL CLERY Dan is a deputy news editor for Science

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U.K. Parliament Panel Reviews Peer Review

2011-07-27 19:01 | 2 Comments

Following an inquiry into peer review in scientific research, U.K. parliamentarians have concluded that, despite many criticisms and little evidence of its effectiveness, the traditional practice of having research articles evaluated by anonymous colleagues before publication is valued by the community and shouldn't be completely abandoned. But in their report released today, the House of Commons Science and Technology Committee says that innovative approaches to disseminating research, including preprint servers, open peer review, and online repositories, should be investigated as they could remove some of the reviewing burden on researchers.

The lawmakers looked at postpublication peer review approaches, such as having online commentary by other researchers. Such methods "represent an enormous opportunity for experimentation with new media and social networking tools," they said, although they caution that such tools should only be used "as a means of supplementing prepublication review."

The fundamental aim of peer review, the report says, is to ensure that research publications are scientifically sound and enable others to reproduce the work. Given that gold standard, the report recommends that unless there is a strong reason against it, all data should be fully disclosed and made publicly available at the time of publication, particularly if it is the outcome of publicly funded research. That recommendation, however, has prompted some concern. "In our experience, most misunderstandings from scientific research come from an absence of meaning and context. I fand! Preparing and scrutinising papers for publication is a vital part of



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FROM THE MAGAZINE

2 August 2013, Vol. 341, No. 6145



Discovery of a New Titi Monkey A young Colombian researcher made the find of a lifetime when he discovered the red-bearded titi monkey.



Coca Science Seeks An Answer in Kilos

Retraction Watch

Archive for the 'hyung-in moon' Category

Retraction count grows to 35 for scientist who faked emails to do his own peer review

with 9 comments

Hyung-In Moon, the South Korean plant compound researcher who made up email addresses so he could do his own peer review, is now up to 35 retractions.

The four new retractions are of the papers in the Journal of Enzyme Inhibition and Medicinal Chemistry that initially led to suspicions when all the reviews came back within 24 hours. Here's the <u>notice</u>, which includes the same language as Moon's 24 other retractions of studies published in Informa Healthcare journals: Read the rest of this entry »



Hvung-In Moon

Written by ivanoransky September 17, 2012 at 8:30 am

Posted in cell biology, faked emails, freely available, hyung-in moon, informa healthcare, j enzyme inh med chem, korea retractions

Journal editor resigned in wake of retractions for fake email addresses that enabled self-peer review

with 16 comments

The case of Hyung-In Moon — the researcher who <u>faked email addresses for</u> potential peer reviewers so he could do his own peer review — has already led to one resignation.

Emilio Jirillo, the editor of Immunopharmacology and Immunotoxicology, which retracted 20 of Moon's papers, stepped down earlier this year in the wake of the case, Retraction Watch has learned.

Here's a note the publisher posted on the journal's site on June 15: Read the rest of this entry »

Dinner to Manne also Count Manner where a country of a country when a country we



August 31, 2012 at 12:04 pm

Posted in hyung-in moon, immunopharmacology and immunotoxicology, informa healthcare, korea retractions

20 more retractions for scientist who made up email addresses so he could review his own papers

with 10 comments

Pages About Adam Marcus

About Ivan Oransky

The Retraction Watch FAQ, including comments policy

The Retraction Watch Store

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Scrutineer on House said, she said: Journal of... Scrutineer on He

Retraction posts by author, country, journal, subject, and

hyung-in moon (4)

Search Results

Was Elsevier's peer review system hacked to get more citations?

with one comment

Last week, we <u>broke the story of Elsevier's peer review system being hacked.</u> As we reported, that led to



faked peer reviews and retractions — although the submitting authors don't seem to have been at fault. As of now, eleven papers by authors in China, India, Iran, and Turkey have been retracted from three journals.



After our post, Elsevier's Tom Reller filled in some details in a post at <u>Elsevier Connect</u>: <u>Read the rest of this entry »</u>

Written by ivanoransky
December 18, 2012 at 10:16 am

Posted in elsevier

Elsevier editorial system hacked, reviews faked, 11 retractions follow

with 31 comments

For several months now, we've been reporting on variations on a theme: Authors <u>submitting</u> <u>fake email</u> addresses for potential peer reviewers, to ensure positive reviews. In August, for example, we <u>broke the story</u> of a Hyung-In Moon, who has now retracted 24 papers published by Informa because he managed to do his *own* peer review.



Now, Retraction Watch has learned that the Elsevier Editorial System (EES) was hacked sometime last month, leading to faked peer reviews and retractions — although the submitting authors don't seem to have been at fault. As of now, eleven papers by authors in China, India, Iran, and Turkey have been retracted from three journals.

Here's one of two identical notices that have just run in Optics & Laser Technology, for two unconnected

Pages

About Adam Marcus

About Ivan Oransky

The Retraction Watch FAQ, including comments policy

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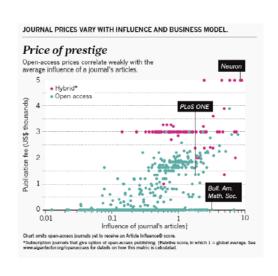


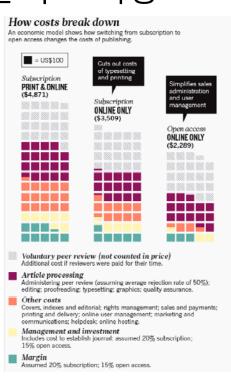
Toby White on No. math prof, Google isn...



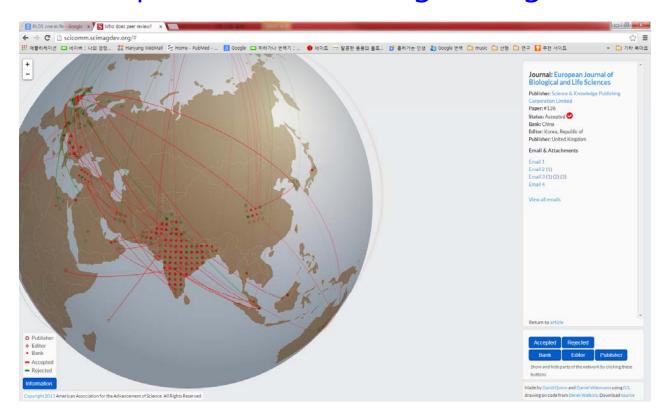
Neuroskeptic (@Neuro... on No.

OA학술지의 논문 투고비용

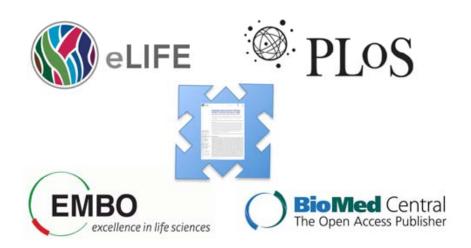


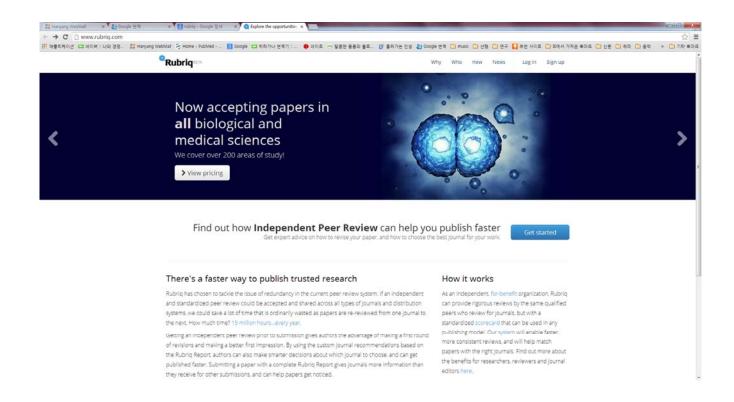


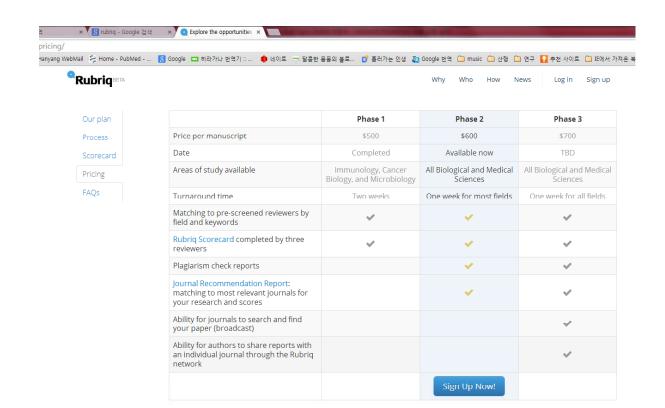
http://scicomm.scimagdev.org/#



Game of Papers: eLife, BMC, PLoS and EMBO Announce New Peer Review Consortium









From our blog →

▲ Rubriq Presentation from SSP Annual Meeting 2013

Missed us at SSP? Want to know the latest things we're cooking up at Rubriq? In this video Keith Collier re-presents all ...

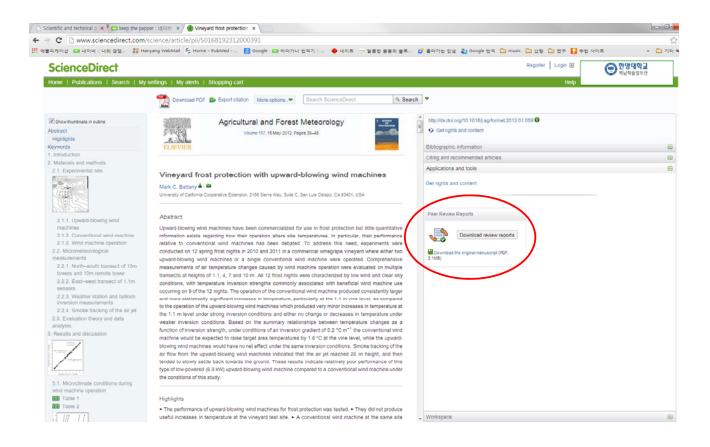
 ${\underline{\hspace{-0.05cm}A}}$ How we found 15 million hours of lost time

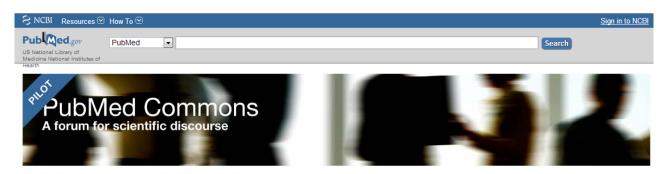
In the news →

▲ Article from The Economist featuring Rubriq: Peer to peer: Portable reviews look set to speed up the publication of papers (06/2013)

Article in Nature about Rubriq: "Company offers portable peer review;

Author-pays service cuts down on redundant reviews." (02/2013)





PubMed Commons: Frequently asked questions

PubMed Commons is a system that enables researchers to share their opinions about scientific publications. Researchers can comment on any publication indexed by PubMed, and read the comments of others

PubMed Commons is a forum for open and constructive criticism and discussion of scientific issues. It will thrive with high quality interchange from the scientific community

PubMed Commons is currently in a closed pilot testing phase, which means that only invited participants can add and view comments in PubMed.

FAQs

- Why can't I see any comments in PubMed?
 How can I join PubMed Commons?
- Can I join PubMed Commons via my academic or research institution? I invited another author to join: why didn't they get the invitation?

- How can I know if someone has commented on one of my articles in PubMed?
 Can I limit searches to those articles that have comments, or search for comments by a particular person?
- Can I comment anonymously?
- Is there a word limit?
- Can I link to an outside URL in a comment?
- Can I connect multiple articles through a comment?
 Are comments to PubMed Commons moderated?
- Can I reply to, rate or complain about a comment?

 Are comments permanent and can they be cited? Can I provide feedback on the system, whether or not I am a participant?
- Can I provide feedback on the system, whether or not I am a participant?

 Will there be a way to integrate comments from PubMed Commons into other websites or applications (API)?
- Is there a way to be kept up-to-date on PubMed Commons developments?

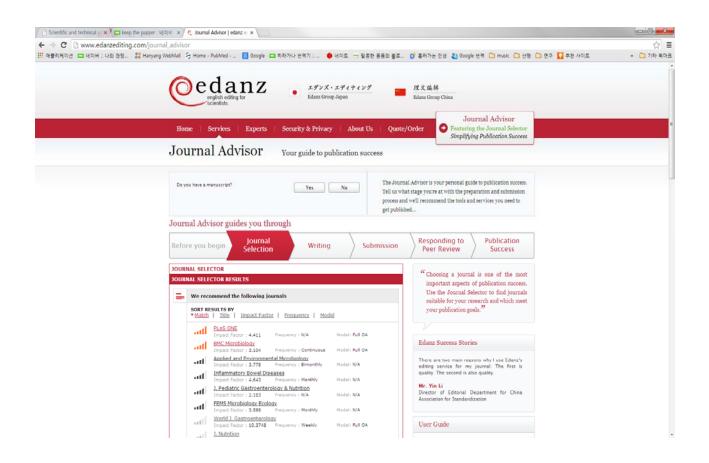
Why can't I see any comments in PubMed?

Only PubMed Commons participants can see comments during the closed pilot phase.

Participants need to be signed into their My NCBI account to see and post comments. For information about My NCBI, click here or on the "Sign in to My NCBI" link at PubMed at the top of the page on the right.

If you have tried all this and still can't see comments, you can contact us using the "Write to the help desk" link at the bottom right on the PubMed homepage.

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전문가심사의 미래

- 과거 제도에 대한 불신
- 변화하는 심사제도
 - 전문가심사 기능의 분리; PLOS One
 - 투명성 재고를 위한 제도
 - Interactive feedback
 - Peerage of Science, PeerJ, F1000Research, Rubriq
- 출판 후 전문가심사